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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,812	07/02/2001	Gregorio Di Cesare	D-43072-01-W	7774
28236	7590	12/05/2003		
CRYOVAC, INC. SEALED AIR CORP P.O. BOX 464 DUNCAN, SC 29334			EXAMINER VO, HAI	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,812

Applicant(s)

CESARE ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 8-11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Harayama et al (US 4,721,643) substantially as set forth in the Office Action mailed on 04/28/2003. Applicants argue that the coextruded, unfoamed layer is a discrete, uniformly non-foamed layer whereas the melt-bonded middle layer is not a discrete layer but instead represents a gradation of highly foamed to fairly foamed to slightly foamed to solid portions. Therefore, the melt-bonded middle layer of Harayama would not accommodate any functional layers. The arguments are not found persuasive for the following reasons. Harayama does not disclose the heat fusion layer being formed by co-extrusion. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. The patentability of a product does not depend on its method of production. Determination of

patentability is based on the product itself. Additionally, Harayama teaches the heat fusion middle layer having a thickness of 0.1 to 0.5 mm or 100 to 500 microns (column 17, lines 15-16). Applicant's functional layer has a thickness ranging from 5 to 50 microns which is completely within the range disclosed by Harayama (page 6, line 20, Applicants' specification). Likewise, it is clearly apparent that the heat fusion layer of Harayama would accommodate any functional layers. Accordingly, the heat fusion layer would be a separate layer. The arguments that there is no teaching or suggesting in Harayama of the two sheets formed from "two different polypropylene resins having different flexural modulus" are not found persuasive. Harayama discloses the two foam layers having different expansion factors (column 4, lines 12-13). Differences in the expansion factor would clearly indicate that the polypropylene resins in the two foam layers are physically different. Additionally, since the expansion factor dictates the flexural modulus of the foam, it is the examiner's position that the two foam layers would inherently have different flexural modulus. Harayama thus reads on two different polypropylene resins and each having different flexural modulus. Further, the claims are unspecific about the composition of the polypropylene resin in each foam layer. Accordingly, the art rejections are thus sustained.

4. The indicated allowability of claims 5-7 is withdrawn in view of the newly discovered reference(s) to Park et al (US 5,180,751), Shida et al (US 5,164,258)

and Maurice (US 4,851,286). Rejections based on the newly cited reference(s) follow.

5. Claims 1, 2, 5-7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al (US 5,180,751) in view of Maurice (US 4,851,286). Park teaches a thermoformable, multiplayer, co-extruded sheet comprising at least two separate foam polypropylene layers obtained by chemical foaming of two polypropylene resins wherein one gas barrier layer is positioned between the two foam polypropylene layers (column 5, lines 20-25, column 8, lines 45-65, and column 10, lines 30-40). Park discloses the gas barrier layer being PVOH (column 8, lines 60-61). Park discloses the gas barrier layer being bonded to the foam polypropylene layers by means of tie layers of modified polyolefins (column 9, lines 5-15). Park discloses the foam sheet having a density of Park does not specifically disclose the two separate foam polypropylene layers having different flexural modulus. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the two separate foam polypropylene layers having different flexural modulus for use in packaging applications. Maurice teaches a laminated material for use in packaging materials comprising the two separate foam polypropylene layers having different foam densities to resist breakage and crumbling when flexed and struck (abstract, column 1, lines 57-64), which is important to the invention of Park, thus further suggesting the modification. It appears that differences in foam densities would lead to differences in flexural modulus. Likewise, the two separate foam polypropylene

layers would have different flexural modulus. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the multiplayer sheet having the two separate foam polypropylene layers having different flexural modulus within the range instantly claimed, motivated by the desire to provide a multilayer sheet having higher breakage and crumbling resistance when flexed and struck.

With regard to claim 2, it appears that Park is using the same starting materials to form the foam layers as Applicants, i.e., polypropylene resin and a blowing agent. Further, Park discloses the foam sheet having a flexural modulus ranging from 10,000 to 50,000 psi or 69 to 344 Mpa (column 11, lines 8-9). Likewise, it is clearly apparent the flexural modulus of the foam layer in the foam sheet would substantially inherently have flexural modulus lower than 1500 Mpa as presently claimed. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties.

6. The art rejections over JP 07-060816 have been overcome by the present amendment.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on M,T,Th, F, 8:30-6:00 and on alternating Wednesdays.

Application/Control Number: 09/806,812

Page 6

Art Unit: 1771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV

Elizabeth M. Cole
ELIZABETH M. COLE
PATENT EXAMINER